ABSTRACT OF THE DISCLOSURE

An information processing system performs a real-time operation including a combination of a plurality of tasks. The system includes a plurality of processors, a unit which stores structural description information and a plurality of programs describing procedures corresponding to the tasks, the structural description information indicating a relationship in input/output between the programs and including cost information concerning time required for executing each of the programs, a unit which determines an execution start timing and execution term of each of a plurality of threads for execution of the programs based on the structural description information, and a unit which performs a scheduling operation of assigning the threads to at least one of the processors according to a result of the determining.